

VA Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols
W. Longmire J. Beville D. K. Lucas J. Wimberly

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerSaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. Carrying case design approval given to Custom-Pak. Tooling has started to meet our [REDACTED] due date.
2. Use test -Nail imbedded wood testing: Contamination is continuing to enter past the shaft seal and clogging the yoke joint at approximately [REDACTED] cuts. We are trying the following on the next run: a) extruding the front seal stamping up [REDACTED] to help shed contamination. b) adding a oiled felt washer to recip shaft to help shield the yoke joint. c) adding relief to the joint to reduce surface area. "P" order on recip shafts has been reactivated with [REDACTED] longer shaft design.
3. Sandbox Testing. Fixture improvement is done. We are not currently testing because we are using our remaining keyed shaft for use test. "P" order will be written for [REDACTED] pieces minimum to finish ESL and support Pilot lot sandbox units.
4. ECN's released: O-ring improvements released. Samples are on the way.
5. Numerous changes to [REDACTED] PM parts are being expedited. [REDACTED] will be use on most to maximize strength.
6. Boot material: Mold will be re-sampled in [REDACTED] Parts should be here by [REDACTED] WL is trying to get scroll housing molded in [REDACTED] to support our test program.
7. Field Testing: Two units returned with headed pin broken off. "P" order is in process for 52100, 4320, and 4320 steel per Bimal Chaterjee recommendation.
8. UL Testing: Radius change on the boot and a plug tooling are on order.
9. Gearing: New armature shafts are due [REDACTED] for late ESL verification and Pilot lot.
10. Manufacturing: Trimmed casting are due [REDACTED] to start machining for Pilot Lot..
11. Pilot lot is in [REDACTED]
12. "Tiger Claw" still under negotiation. We are moving ahead with TigerClaw artwork.
13. Individual part layout status will be reviewed and upgrade to help purchasing.

Action Items: (date assigned)

1. Advise additional blades [REDACTED]
2. Conduct trademark search for "Tiger Claw" and register same [REDACTED] Started.
3. Quote extruded shape for 879458 stamping [REDACTED]
4. Follow up with steel for 902052pin [REDACTED]
5. Logo development by [REDACTED]
6. Conduct plunge and scroll test and jig saw plunge and test [REDACTED]
7. Mock up reverse handle Tigersaw and forward to DKL [REDACTED]
8. Test 303K HP. [REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating for approvals. HP test in Test Lab on the [REDACTED] motor.
2. DL presented preliminary renderings of proposed line.
3. Rotating handle was presented. Market value will be determined.

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Meeting participants:

J. Beville
A. Gathers

J. Schnell
D. Lucas

J. Nichols
A. Phillips

W. Longmire
J. Wimberly

VA Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols
W. Longmire J. Beville D. K. Lucas J. Wimberly
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerSaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. Concern for lack of response from [REDACTED] on powdered metal parts. Purchasing/engineering will obtain timeline on the parts and follow up regularly. [REDACTED] will be use on most to maximize strength
2. AG will clear P-Orders this week. WL will review and make sure all purchase orders are placed.
3. Manufacturing: Two die-castings are here with the scroll housing casting due [REDACTED] WL will follow up with manufacturing to be sure fixtures and gages are in place prior to machining parts for Pilot Lot.
4. ECN's released: Material changed to [REDACTED] on all boots. No size adjustments planned prior to Pilot. Approval given to texture all boots.
5. Testing has been revised to duplicate failure seen on field tests. As a result the headed pin 902052 is showing more wear. BC has recommended using [REDACTED] steel in addition to [REDACTED] Parts will be expedited after material arrives.
6. Use test -Nail imbedded wood testing: Contamination is continuing to enter past the shaft seal and clogging the yoke joint at approximately [REDACTED] cuts. Additional testing will be done with extruded stamping to see if gains can be made.
7. Gearing: New armature shafts are due [REDACTED] for late ESL verification and Pilot lot.
8. "TigerClaw" name, and label art was approved by the team. Labels will be printed and forwarded to photography by [REDACTED] Memo sent to WW and BM on needed action.
9. Marketing will need [REDACTED] units from Pilot.
10. Pilot lot is in [REDACTED]

Action Items: (date assigned)

1. Advise additional blades [REDACTED]
2. Quote extruded shape for 879458 stamping [REDACTED]
3. Follow up with steel for 902052 pin [REDACTED]
4. Test [REDACTED] and [REDACTED] motors for HP. [REDACTED]
5. Adam Gathers to issue safety review minutes [REDACTED]
6. Talk to SK on "P" order issues. [REDACTED]
7. Follow up with status of Patents [REDACTED]
8. Retrieve comparable tests on Production Tigersaw [REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating for approvals. HP test request in Test Lab on the [REDACTED] and [REDACTED] motor.
2. Drive shaft will be fabricated for 3/4" stroke length.
3. DH/DL will determine market value of rotate-able "D" handle.

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Meeting participants:
W. Longmire

D.Hall
A. Gathers

J. Beville
D. Lucas

J. Schnell
A. Phillips

J. Nichols
J. Wimberly

VA Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly
W. Longmire J. Beville D. K. Lucas R. Pigg
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerClaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. [REDACTED] (pm parts) has given delivery dates. Purchasing/engineering will follow up weekly to verify they are on schedule.
2. All P-Orders are on the factory floor. WL will review and make sure all purchase orders are placed.
3. Manufacturing: Fixtures are not complete. WL will follow up with JP on manufacturing fixtures needed to run Pilot Lot. AG and WL to determine status of production gauges and determine if QC fixtures will be used instead of production gauges during Pilot.
4. Production to expedite "P" orders on sandbox shaft to support testing.
5. Headed pin 902052 fabricated in [REDACTED] steel is due from heat treat on [REDACTED] and will be tested immediately.
6. Testing: cutting test will be run without drywall to verify component life beyond the point reached on previous runs. Current production units will be sandbox life tested ASAP. Sandbox life testing will resume as soon as shafts are available to verify life beyond [REDACTED] hours.
7. Gearing: WL will follow up on un-knurled armature shafts that are due for late ESL verification and Pilot lot.
8. "TigerClaw" labels design is complete and photo units have been forwarded for carton art and instruction manual development. DH to supply feature and benefits ASAP.
9. Marketing will need [REDACTED] units from Pilot.
10. Pilot lot is in [REDACTED]

Action Items: (responsible part/date assigned)

1. Advise additional blades [REDACTED]
2. Quote extruded shape for 879458 stamping [REDACTED]
3. Talk to SK on "P" order issues. [REDACTED]
4. Talk to JP on manufacturing fixtures [REDACTED]
5. WL to review [REDACTED] steel concerns with manufacturing [REDACTED]
6. Carton feature and benefits to WW by [REDACTED]
7. Retrieve comparable tests on Production Tigersaw [REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating for approvals.
2. HP testing complete on [REDACTED]
3. Drive shaft fabrication for 3/4" stroke length is near completion.
4. DH/DL will determine market value of rotate-able "D" handle.

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	
Production	[REDACTED]	[REDACTED]	

Meeting participants: J. Beville J. Schnell J. Nichols W. Longmire A. Gathers
D. Lucas A. Phillips J. Wimberly T. Breeden

VA Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly
W. Longmire J. Beville D. K. Lucas R. Pigg
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerClaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. [REDACTED] parts are to be press w/o [REDACTED] and are due at P-C on [REDACTED] PM ring will slip to [REDACTED] due to tooling problems.
2. All P-Orders are on the factory floor. Sandbox shafts will be remade to correct hole location. WL will review and make sure all purchase orders are placed.
3. Manufacturing: Assurance given that fixtures will be complete. QC fixtures will be used instead of production gauges during Pilot. Team has concerns that reduced work schedule will impact Pilot Lot and SK will be contacted. Forged yoke machining fixture nesting had to be reworked to allow for forging tolerances.
4. Headed pin 902052 fabricated in [REDACTED] steel and is on use test [REDACTED] BC is holding balance of parts. Engineering drawing will be changed to reflect [REDACTED]
5. Testing: cutting test will be run without drywall to verify component life beyond the point reached on previous runs. Current production units will be sandbox life tested ASAP. Sandbox life testing will resume as soon as shafts are available to verify life beyond [REDACTED] hours.
6. Gearing: Armature shafts received and will be built up into armatures for late verification prior to Pilot lot.
7. Carton art should be approved by [REDACTED] and instruction manual 2nd pass is being worked on. Engineering will complete exploded drawing this week.
8. Pilot lot is in [REDACTED]

Action Items: (responsible party/date assigned)

1. Advise additional blades [REDACTED]
2. Talk to SK on "P" order issues [REDACTED]
3. WL to review [REDACTED] steel concerns with manufacturing [REDACTED]
4. Hot list of internal/external parts that are tight for Pilot [REDACTED]
5. Retrieve comparable tests on Production Tigersaw [REDACTED]
6. Follow up with WW on corrugated sleeve [REDACTED]
7. Carrying case text and symbols to [REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating for approvals (concern on one SKU with [REDACTED])
2. Saw with ¾" stroke length will be complete by [REDACTED] Drive shaft for 1" stroke will be fabricated.
3. DL present from models of the proposed units. Well received by Team.
4. DL reported on positive field evaluation of inverted handle. No value of feature was given.
5. DH will determine market value of rotate-able "D" handle.

..... MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Meeting participants:

J. Beville
D. Lucas

J. Schnell
A. Phillips

J. Nichols
J. Wimberly

W. Longmire
R. Pigg

A. Gathers

VA Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg Bimal Chaterjee
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerClaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. Most [REDACTED] parts are here. The material/configuration changes have greatly improved part strength and should eliminate failures on these parts. PM ring will be here [REDACTED] due to tooling problems. Drawings will be changed asap to reflect the material change.
2. All P-Orders are on the factory floor. Remade sandbox shafts should be complete by [REDACTED] WL will review and make sure all purchase orders are placed.
3. Manufacturing: Memo sent to confirm the [REDACTED] pilot lot date. Machining of all three castings has started. QC fixtures will be used instead of production gauges during Pilot. Team has concerns that reduced work schedule will impact Pilot Lot and SK will be contacted. Forged yoke machining fixture nesting had to be reworked to allow for forging tolerances.
4. Headed pin 902052 fabricated in [REDACTED] steel and is on use test [REDACTED] cuts and looks good. The drawing will be changed to [REDACTED] asap. BC is holding balance of parts.
5. Testing: Sand box mounting will be review since both current production saws broke the shaft end at less than [REDACTED] hours. Mounting will be improved and new saws will be tested
6. Gearing: Armature assemblies are being made with ground OD shafts to allow some testing prior to pilot lot.
7. Carton art needs to be approved by [REDACTED] to meet printing dates. The exploded drawing for parts list is complete. Mat Ross and Dave Hall are working to resolve trademark issues. All graphics work will proceed with the TigerClaw name. If there is a last minute change to this direction it needs to be communicated by [REDACTED] to allow time for printing.
8. Carrying case sample is due [REDACTED] Approval given on symbols for the interior of the case. Per Tech Service the blade selection chart has been obsoleted from both carrying cases and instruction manuals. The manual refers the customer to our web site and service centers.
9. Pilot lot is in [REDACTED]

Action Items: (responsible party/date assigned)

1. Critical - decision must be made on additional blades to be supplied with the VA [REDACTED]
2. WL to review [REDACTED] steel concerns with manufacturing [REDACTED]
3. Hot list of internal/external parts that are tight for Pilot [REDACTED]
4. Retrieve comparable tests on Production Tigersaw [REDACTED]
5. Critical - Follow up with WW on corrugated sleeve [REDACTED]
6. How are blade adapters going to be sold as service parts etc. [REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating for approvals (concern on one SKU with [REDACTED] volume).
2. Motor design will be started with $\frac{3}{4}$ " stroke length unit. Drive shafts for 1" stroke will also be fabricated.
3. DL reported on positive field evaluation of inverted handle. No value of feature was given.
4. DH will determine market value of rotate-able "D" handle.

Action Items: (responsible party/date assigned)

1. Determine market value of rotating handle [REDACTED]
2. Better definition is need on [REDACTED] units. Investigate mold houses use by DeVilbiss [REDACTED]

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Meeting participants:

J. Beville
D. Lucas
A. Phillips

J. Schnell
J. Wimberly

J. Nichols
R. Pigg

W. Longmire
G. Griffin

A. Gathers
B. Chaterjee

Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg Bimal Chaterjee
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerClaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. Steel machining: WL has issued separate notes on steel and aluminum parts. Shoe bracket 901715 will be remade since parts are o/s due to large burr and tapered on the shank. WL will expedite new forgings.
2. Aluminum machining: Gage for gear housing is late and has to be reworked. Additional castings are ordered in case the gear center distances do not gage. Scroll housing OD is rough and will be addressed with two pass machining. Additional casting on order.
3. Purchased parts appear to be on schedule with pins for [REDACTED] due [REDACTED]
4. QC will make capability studies on Pilot lot parts.
5. TigerClaw trademark agreement is nearing conclusion all printed material will have TigerClaw text.
6. Sleeve print plate due at [REDACTED]; Manual file sent to local printer yesterday, Carrying case cores are being modified to better retain blades while the cavities are out for texture.
7. Mark up of the P Proposal has been forwarded to DH with changes to reflect stoke, speed, and tool life.
8. Minimum Test Requirements were approved: [REDACTED] on nail embedded vertical [REDACTED] scroll in [REDACTED] material
Test Plan will be revised accordingly [REDACTED] in drywall test + [REDACTED] scroll
[REDACTED] drop test
[REDACTED] Hours in sandbox
9. Draft received from Hunton and Williams on VA Tigersaw patent.
10. Testing on headed pin is above [REDACTED] cuts ([REDACTED] wood [REDACTED] radius scroll) and looks good. PM parts are also not failing on test. Revised [REDACTED] parts have not failed on drop or life test. PM ring is being built into units for sandbox and use test. Drawings will be changed asap to reflect the material change.
11. Alternate commutators will not be used during our Pilot Lot. DR advised to qualify component on production saws.
12. Pilot lot is in [REDACTED]

Action Items: (responsible party/date assigned)

1. Dave Hall is responsible for supplying an additional blades for pilot lot [REDACTED]
2. How are blade adapters going to be sold as service parts etc. [REDACTED]
3. Capital invoices need to be logged prior to year end [REDACTED]
4. Ecn on pm material [REDACTED]
5. Determine extent of contamination problem on existing Tigersaw [REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating for approvals. Cordless will be handled separately.
2. AC Motor design will be started with 3/4" stroke length unit. Drive shafts for 1" stroke will also be fabricated.
3. Shafts have been sent to DC motor supplier. Handle set PO has been issued for SLA/poured urethane parts with metal screw inserts.

Action Items: (responsible party/date assigned)

1. Determine market value of rotating handle [REDACTED]
2. Better definition is needed on [REDACTED] units. Investigate mold houses use by DeVilbiss [REDACTED]

MAILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Meeting participants:
D. Lucas

J. Beville
A. Phillips

J. Schnell
J. Wimberly

J. Nichols
R. Pigg

W. Longmire
G. Griffin

A. Gathers
P. Wall

Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg Bimal Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: 9740 TigerClaw (00-64) Team meeting held [REDACTED]

Discussion Items:

1. Pilot date is slipping due to lack of verified machined gear housings (901162) and grooved pins (901466) from [REDACTED] (see item #3 and #4 for details). New date will be established on [REDACTED]. All effort needs to be made to hold Pilot prior to shutdown.
2. Steel machining: No problems, capabilities study under way.
3. Aluminum machining: Gage for gear housing was late from outside source and had to be reworked several times. Gage to be at PC [REDACTED] inspected and used to verify gr hsg machining on [REDACTED]. Additional castings are here if machining is not acceptable. Additional scroll hsgs and shoe brkts are being machined to try to improve surface finish and taper. SK to look into problems with "P" orders and gaging deliveries. Manufacturing is concerned with the production date of [REDACTED] and will work to resolve all issues.
4. Purchased pin 901466 from [REDACTED] is not here. [REDACTED] has been instructed to ship direct from manufacturer to PC and give us a tracking number. [REDACTED] to advise delivery date on [REDACTED]. WL will determine if the shop can run parts in-house in case [REDACTED] can't deliver.
5. QC continues capability studies on Pilot lot parts.
6. All printed material will have TigerClaw text. TigerClaw trademark agreement is near.
7. Corrugated sleeve has been printed, delivery [REDACTED]. Manual is in stock, Carrying cases are molded and in transit.
8. Testing of latest pm components is at [REDACTED] cuts (w/o drywall) without failure.
9. Concern with [REDACTED] performance on development/delivery of pm parts has been elevated by BC. Plan will be developed to minimize our risk on these parts.
10. Pilot lot ASAP.

Action Items: (responsible party/date assigned)

1. Dave Hall is responsible for supplying additional blades for pilot lot [REDACTED]
2. How are blade adapters going to be sold as service parts etc. [REDACTED]
3. Capital invoices need to be logged prior to year end [REDACTED]
4. Ecn on pm material [REDACTED]
5. Determine extent of contamination problem on existing Tigersaw [REDACTED]

Tigersaw Relaunch

1. Product Proposal is in circulation.
2. AC Motor design to DR. We are trying to have the motor wound before year end if possible.
3. Prototype handleset for cordless will be here [REDACTED]. Motors will be here [REDACTED]. Unit will be built on [REDACTED]
4. 1st pass BOM to be costed prior to shutdown.

Action Items: (responsible party/date assigned)

1. Determine market value of rotating handle [REDACTED]
2. Better definition is needed on [REDACTED] units. Investigate mold houses use by DeVilbiss [REDACTED]

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Meeting participants:

J. Beville

J. Schnell

W. Longmire

A. Gathers

Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg Bimal Chaterjee
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden

FROM: John Schnell

SUBJECT: Tigersaw Team meeting held [REDACTED]

9740 TigerClaw

1. Pilot lot held [REDACTED] tools were built. As a result of assembly difficulties during the built the pins that hold the rotate housing to the gear housing will be change to a headed design using one o-ring each. Production is planned on a new "U" line with different line workers than were used on Pilot. Manufacturing capability/processing concerns on several parts will be addressed by running additional components orders and assembling a quantity of tools prior to production. Reliability and Product Engineering will review tight gearing and tight shoe brackets that were found on a couple of units for corrective action.
2. Testing (pilot lot): Drywall use test (goal [REDACTED] cuts): Tool [REDACTED] cuts (off test – mech. failure)
Tool [REDACTED] cuts on test
Vertical w/o Drywall (goal [REDACTED] cuts): Tool [REDACTED] cuts on test
Tool [REDACTED] cuts on test
Sandbox test (goal [REDACTED] hours): Tool [REDACTED] hours (off test – fixture clamp failure)
Tool [REDACTED] hours (on test)
Field test: [REDACTED] tools at Reliability selected sites)
3. Manufacturing Review held [REDACTED] Manufacturing capability/processing concerns on several parts will be addressed by running additional components orders. WL will issue minutes of the Review with action being taken.
4. Blade adapter will be established as SS/A with 5 parts per card. Carrying case will remain with a single slot. Only changes to carrying case will be: remove Tigersaw with retexure and tightening adapter slot.
5. Team Audit of Pilot Lot to be scheduled by [REDACTED] followed by release of Pilot Lot tools for salesman use.
6. TigerClaw trademark agreement has been signed. Legal counsel to advise use of TM.
7. Production in [REDACTED]

Action Items: (responsible party/date assigned)

1. Dave Hall to advise blade selection by [REDACTED]
2. Any changes to sleeve art needed from Dave Hall by [REDACTED]
3. ECN on headed pin to be released by [REDACTED]

..... MILESTONE PLANNED DATE CURRENT DATE ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch

1. Product Proposal is circulating (lacks one or two signatures).
2. 1st pass 8-amp motor will be wound by [REDACTED]
3. In-line cordless saw prototype were shown on [REDACTED] and were well received. BOM cost was presented along with associated tooling.
4. Engineering will investigate use of shortened gear housing to allow access to the blade clamp during the full stroke of the tool.
5. Pinion /gear configuration is under review to minimize gear housing size and maintain pinion strength.
6. DH reported retail market value of the rotating handle as [REDACTED]
7. DH will work develop marketing spreadsheet for cordless recip saws.

Meeting participants:

J. Beville
D. Hall

J. Schnell
D. Lucas

W. Longmire
J. Wimberly

A. Gathers

J. Nichols

Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg Bimal Chaterjee
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler

FROM: John Schnell

SUBJECT: Tigersaw Team meeting held [REDACTED]
9740 TigerClaw

1. **Major Team Concern:**

[REDACTED] has indicated they are not able to delivery gears to support first production on [REDACTED] and may not deliver until well into [REDACTED]. This is a serious issue that must be resolved. Gear blanks, gear hobs, and manufacturing site are all unresolved at [REDACTED]. Walter Longmire will review this issue with Greg Lawler ASAP.

2. **Pilot lot issues:** Because of manufacturing concerns all aluminum castings and the yoke will have additional pilot lots prior to production. Additional parts will also be machined on several steel parts.

3. **Testing (pilot lot):**
- Drywall use test (goal [REDACTED] cuts): Tool [REDACTED] cuts (off test - mech. failure)
Tool [REDACTED] cuts (off test - contamination)
 - Vertical w/o Drywall (goal [REDACTED] cuts): Tool [REDACTED] cuts (off test- blade holder)
Tool [REDACTED] cuts (off test- blade holder)
 - Sandbox test (goal [REDACTED] hours): Tool [REDACTED] hours (off test - fixture clamp failure)
Tool [REDACTED] hours (off test- fixture)
 - Field test: [REDACTED] tools at Reliability selected sites)
 - Jam test: (goal [REDACTED] jams): Tool [REDACTED] jams (gear tooth broken)
Tool [REDACTED] jams (gear tooth broken)
Tool [REDACTED] jams (gear tooth broken)
Failures on jam test are being investigated

4. Headed pin 904644 for rotate housing has been released. This part will initially be produced in-house until tooled as a cold heading.
5. Decision made to keep "Tigersaw" on outside of the carrying case.
6. Pilot lot team audit was held [REDACTED]. Tools were released for salesman on [REDACTED]. AG has distributed audit minutes.
7. Three [REDACTED] blades (2 recip, 1 jigsaw) have been released and will be supplied with the unit.
8. Sleeve art is being revised to be Sensormatic ready, cite additional blades, and mention jig saw blade adapter. TM will be used on TigerClaw logo.
9. Unit cost is up substantially due to blades, headed pin, pm parts, etc
10. Production in [REDACTED]

Action Items: (responsible party/date assigned)

1. Check with Flex on inspection capability [REDACTED]
2. Expedite sleeve art changes [REDACTED]
3. ECN on headed pin to be released by [REDACTED]

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch

- Product Proposal is signed. Cordless is a separate PP.
- 1st pass 8-amp motor is being reviewed. Additional configuration will be wound.
- Core rub on In-line cordless saw prototype is being addressed before starting testing.
- Exposed blade clamp is being investigated for feasibility.
- Preferred Pinion /gear configuration will reduce gear hsg overhang and maintain pinion size.
- Engineering will breadboard the rotatable handle.
- DH will work develop marketing spreadsheet for cordless recip saws.

Meeting participants:

J. Beville
D. Hall

J. Schnell
D. Lucas

W. Longmire
J. Wimberly

A. Gathers
A. Phillips

J. Nichols
R. Pigg

Tigersaw Team Notes

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg Bimal Chaterjee
CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

SUBJECT: Tigersaw Team meeting held [REDACTED]

9740 TigerClaw

- Gearing:
Delay in placing the PO's with [REDACTED] has held up delivery of 900524 shaft and 900524 gear and will cause a slip in the production schedule of the TigerClaw. [REDACTED] will receive gear blanks on [REDACTED]. They have committed to shipping finished gears no later than the late week in [REDACTED]. Pinion shaft will be process first at our request to allow more time for P-C to build them into motors. [REDACTED] will continue to push for an earlier delivery date. The schedule is revised to show 2nd pilot lot for manufacturing and assembly with Production date driven by [REDACTED] delivery.
- Pilot lot issues: Additional "P" orders to address manufacturing concerns on aluminum castings and steel part have started. Cutter life when machining the forged steel yoke is a problem that must be addressed.
- Headed pin 904644 and 902052 (will start production a manufactured part) are out for quotation as a cold heading. "P" order for 904644 pin (rotate to gear housing) should be complete by [REDACTED] and will be tested to verify design.
- Testing of the TigerClaw is nearing completion. The team is reviewing jam test results and will amend the test to address the extra impact the drive mechanism rigidity transfers to the gearing.
- Artwork has been approved for printing plate that will include new UPC location for "in tool" Sensormatic tag and text to mention jigsaw blade adapter and blades.
- Salesman units have been shipped.
- Plans are in place to try and recapture unit cost except for increases caused by adding blades and jigsaw adapter.
- Production in [REDACTED]

Action Items: (responsible party/date assigned)

- Check with Flex on inspection capability [REDACTED]
- Determine need for additional safety review [REDACTED]
- Bring field test units in for evaluation [REDACTED]

..... MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch

- Product Proposal is signed.
- 8 amp motor with 3/4" stroke saw cut slightly faster than the [REDACTED] on speed of cut test. [REDACTED] event though the [REDACTED] blade rake.
- Motor temperature rise test will be conducted to verify the temperate is within limits.
- Partial exposure of the to blade clamp will be mocked up by engineering.
- Engineering will breadboard the rotatable handle.
- Concept of a handle isolation mount shown by DKL.
- DH is developing marketing spreadsheet for cordless recip saws.

Meeting participants:

J. Beville
D. Hall

J. Schnell
D. Lucas

W. Longmire
J. Wimberly

A. Gathers
A. Phillips

J. Nichols
R. Pigg

Tigersaw Team Notes

meeting held [REDACTED]

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

9740 TigerClaw

- Gearing:** [REDACTED] received gear blanks early than expected. The pinion has been hobbed and will air ship from Italy on [REDACTED]. Ship date on the gear is [REDACTED] and [REDACTED] continues to try to improve. Gears will include case depth and deep freeze as specified on our engineering drawing.
- Manufacturing Issues:** "P" orders: 904644 pin is nearly finished with manual feed grind. Modification will be made to feeder to allow automatic feed of the pin for production. 901715 bracket is near completion with some concern of burrs as the cutter dulls. Additional "P" order on scroll housing will be complete this week. Additional "P" order on guide sleeve will be run to resolve grinding.
- Net shape design for round headed pins 904644 is quoted @ [REDACTED] and is being prototyped in [REDACTED] steel proposed by supplier. 902052-square headed pin is quoted at [REDACTED] in net shape carbide.
- Jigsaw blade supplier has been informed that the drive hole is required on the blade they are supplying for the TigerClaw. We will use the 12528 (current blade) and have asked [REDACTED] to support our build date requirements.
- The jigsaw blade adapter will not function with [REDACTED] blades available because they have short shank length or exceptional tooth offset. No changes to the adapter are planned.
- Carton sleeve printing plates and carrying case are both ready for production.
- Per AG all items from safety review have been addressed and there is no need to an additional meeting. UL approval has granted on this tool.
- Production in [REDACTED] (or when gears are received from [REDACTED])**

Action Items: (responsible party/date assigned)

- Bring field test units in for evaluation by [REDACTED]
- Fab/test/purchase 904945 round headed pin [REDACTED]
- Prototype/test net shape carbide part [REDACTED]

..... MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch (PP 01-72)

- 8-amp motor exhibited poor commutation on dyno and will be evaluated and changed out before heat-rise and hp testing.
- Jam test of the 8-amp motor (with a single bearing/standard length wobble ball) and the [REDACTED] bearing did not jam well. Video of the jam shows a large amount of internal bearing deflection. We will need to get bearing loads down to near [REDACTED] levels to use a single bearing design.
- Additional review of the housing cut away in the clamp area is needed.
- Engineering is working on an adjustable shoe that will have minimal mounting differences between keyed and keyless version and be adaptable to a [REDACTED] housing.
- Course of action needs to be determined for handle isolation mounts and rotatable handle.
- Markup of 1/4 turn clamp is out for feasibility study by supplier.

Meeting participants:

J. Beville
D. Hall

J. Schnell
D. Lucas

W. Longmire
J. Wimberly

A. Gathers
R. Pigg

J. Nichols
J. Wimberly

Tigersaw Team Notes

meeting held [REDACTED]

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer
Bob Kibbe, Al Barlow

FROM: John Schnell

9740 TigerClaw

1. Home Builder Show – scroll latch: Additional testing by team confirms we are well satisfied with the scroll latch characteristics.
2. Gearing:
Pinions from [REDACTED] are here. Date on the gear is [REDACTED] and [REDACTED] continues to try to improve that date. BC to follow up with [REDACTED] on heat treat of the gear.
3. Manufacturing Issues
4. Issues
5. Drop test result slightly below target. Action being taken by [REDACTED] to improve tooth density on the pm ring. Concern that failure point will move to casting or scroll latch is the pm ring is made too strong. Need team agreement to proceed. Three PM parts (scroll latch, pm ring and cam) currently at [REDACTED] are out for quotation at [REDACTED]
6. Round headed pin 904644 (52100) on test with 904945 [REDACTED] to follow. Carbide version of 902052-square headed pin is being prototyped and due [REDACTED]
7. Square headed pin [REDACTED] and [REDACTED] coatings tested well under abusive cutting. [REDACTED] production pin also looked good. Additional abusive cutting will be done on all three units to determine which configuration is a standout.
8. Running changes planned: Carrying case to add radius/ blade guide, Instruction manual ? /patent info
9. **Production in [REDACTED] (At this point the best possible date based on gear delivery would be P2 on [REDACTED] followed by immediate production.)**

Action Items: (responsible party/date assigned)

1. Bring remaining field test units in for evaluation by [REDACTED]
2. Test/purchase 904945 round headed pin [REDACTED]
3. Prototype/test net shape carbide part [REDACTED]

1	2	3	4
1	2	3	4
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch (PP 01-72)

1. 8-amp has passed heat-rise test. Horsepower dyno curve has been generated.
2. We were attempting to duplicate the [REDACTED] of the [REDACTED] and our calculation/testing shows we are within [REDACTED] loads (flywheel effect + motor loading at stall). Wobble length will be revisited to try to shorten it to be equal to the [REDACTED] so a single ball bearing can be used.
3. Additional review of the housing cut away in the clamp area is needed. ¼ turn clamp feasibility should be complete by [REDACTED]
4. Engineering is working on an adjustable shoe that will have minimal mounting differences between keyed and keyless version and be adaptable to a [REDACTED] housing.
5. Course of action needs to be determined for handle isolation mounts and rotatable handle.

Meeting participants: J. Beville J. Schnell W. Longmire A. Gathers J. Nichols
D. Hall D. Lucas J. Wimberly R. Pigg J. Wimberly

Tigersaw Team Notes

meeting held [REDACTED]

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

9740 TigerClaw

1. Home Builder Show - scroll latch: Additional testing by team confirms we are very satisfied with the scroll latch characteristics. WL and DH will follow up in their areas and determine if a meeting needs to be called.
2. Gearing: Pinions from [REDACTED] are here. Ship date on the gear is [REDACTED] and [REDACTED] continues to try to improve that date.
3. Manufacturing Issues: P2 to verify assembly and manufactured components will be about [REDACTED] tools. Meeting start up production quantities of machined rotate housing is a current manufacturing concern. Machining of production casting has started to help address the problem.
4. Issues: One unit from field test has a broken tooth on the pm ring. The drop test was rerun with a different orientation resulting in failure at [REDACTED] vs our goal of [REDACTED] on concrete. Action is being taken by [REDACTED] to improve tooth density on the pm ring. Gains at [REDACTED] will be marginal because of material and processing limitations. Three parts (scroll latch, pm ring and cam) currently at [REDACTED] are out for quotation at [REDACTED]. The team will continue to work for resolve this problem.
The team recommends starting production with the [REDACTED] part because:
 - a) Tooling and qualifying higher strength parts at [REDACTED] may take up to [REDACTED]
 - b) Reducing the number of teeth on the ring would delay production several weeks and require art changes to advertising and carton.
 - c) [REDACTED] tools will be dropped on concrete in the orientation that will cause failure.
5. Testing on 904945 round headed pin [REDACTED] has started. Carbide version of 902052-square headed pin is being prototyped and due [REDACTED]
6. Additional abusive testing underway on square headed pin to determine which product is the standout. [REDACTED] All look good. Coating cost is expected this week.
Production will start with [REDACTED]
7. Running changes planned: Carrying case - add radius/ blade guide, Instruction manual to add patent info.
8. Production in [REDACTED] (Earliest production based on gear delivery would be P2 on [REDACTED] followed by immediate production.)

Action Items: (responsible party/date assigned)

1. Determine if a meeting is need on scroll latch [REDACTED]
2. Test/purchase 904945 round headed pin [REDACTED]
3. Prototype/test net shape carbide part [REDACTED]

MAILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch (PP 01-72)

1. Gear housing, drive shaft, and wobble ball are being modified in the model shop to [REDACTED] of the [REDACTED]. Parts should be complete this week. Jam testing will be conducted and we hope to verify that a single bearing wobble ball will survive repeated mechanism jams similar to the [REDACTED]
2. 1/4 turn clamp feasibility study is not finished because [REDACTED] is waiting on equipment attachment cost.
3. Limited activity on adjustable shoe this week because of TigerClaw activity. We will try to have design ready for boarding this week.

4. Limitation of rotating handle discussed and we will bread board.

Meeting participants:	R. Pigg	J. Schnell	W. Longmire	A. Gathers	J. Nichols
	D. Hall	D. Lucas	J. Wimberly	A. Phillips	

Tigersaw Team Notes

DATE:

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

9740 TigerClaw

- Scroll latch:** JS/JB will determine the range of torque at which the scroll housing releases (dynamically) for reference. DH is satisfied with the scroll latch. AG will follow up in his area and determine if a meeting needs to be called.
- Gearing:** [redacted] gears will ship from [redacted] or [redacted] WL /purchasing to confirm that [redacted] will be able to support our continued production.
- Manufacturing Issues:** P2 to verify assembly and manufactured components will be about [redacted] tools. Production has started on scroll and rotate housings and other components.
- Issues:** [redacted] has improved density of the tooth area of the pm ring. Sample parts for tooth strength test will be here [redacted] has pressed [redacted] parts with higher tooth density and they will take about [redacted] to complete processing
Cam 901717 checks too hard/ part did not fail @ [redacted] drop test [redacted] AG to follow up with tempering options.
- Cold-headed pin 904945 will release this week for tooling (replaces 904644 manufactured pin as soon as production parts are available). [redacted] square headed pin 904946 will release this week for tooling [redacted] (replaces 902052 [redacted] steel manufactured pin). These two part numbers will allow us to recapture over [redacted] in cost.
Testing on coatings has been terminated because of good wear observed on [redacted] pin.
- Carrying case blade/radius guide graphics (running change) are on final pass.
- DH would like to make running change to add #12458 scroll blade and remove the metal cutting blade. He will follow up with [redacted] to confirm cost savings.
- "P" order of sandbox shafts will be started to support post-production testing.
- Production in [redacted] (Earliest production based on gear delivery would be P2 on [redacted] followed by immediate production.)**

Action Items: (responsible party/date assigned)

- Determine if a meeting is need on scroll latch [redacted]
- Follow up on [redacted] pm quotes [redacted]
- Blade cost for 12458 in bulk [redacted]
- Scroll hsg torque range [redacted]
- Determine options on 901717 cam hardness [redacted]

..... MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[redacted]	[redacted]	[redacted]
CER	[redacted]	[redacted]	[redacted]
Engineering Release	[redacted]	[redacted]	[redacted]
ESL	[redacted]	[redacted]	[redacted]
Pilot Lot	[redacted]	[redacted]	[redacted]
Production	[redacted]	[redacted]	[redacted]

Tigersaw Relaunch (PP 01-72)

- Jam test failed after 1 jam because of retaining ring dislodging. Additional review and testing are required.
- ¼ turn clamp will cost either [redacted] in part cost or [redacted] in CNC attachment cost at [redacted] Quote is based on annual volume of [redacted] parts.
- Bread-board of keyless adjustable shoe design is in the model shop and should complete by next meeting.
- Handle rotating is being rough prototyped to allow us to obtain better marketing input.

Meeting participants:

R. Pigg
D. Hall

J. Schnell
J. Beville

W. Longmire
J. Wimberly

A. Gathers

D. K. Lucas

Tigersaw Team Notes

meeting held [REDACTED]

DATE: [REDACTED]

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

9740 TigerClaw

- Scroll latch: JS/JB will determine the range of torque at which the scroll housing releases (dynamically) for reference. DH is satisfied with the scroll latch. AG will follow up in his area and determine if a meeting needs to be called.
- Gearing: [REDACTED] gears will ship from [REDACTED] on [REDACTED] WL /purchasing to confirm that [REDACTED] will be able to support our continued production.
- Manufacturing Issues: P2 to verify assembly and manufactured components will be about [REDACTED] tools. Production has started on scroll and rotate housings and other components.
- Issues: [REDACTED] has improved density of the tooth area of the pm ring. Sample parts for tooth strength test will be here [REDACTED] [REDACTED] has pressed [REDACTED] parts with higher tooth density and they will take about [REDACTED] to complete processing
Cam 901717 checks too hard/ part did not fail @ [REDACTED] drop test [REDACTED] / AG to follow up with tempering options.
- Cold-headed pin 904945 will release this week for tooling (replaces 904644 manufactured pin as soon as production parts are available). [REDACTED] square headed pin 904946 will release this week for tooling [REDACTED] (replaces 902052 [REDACTED] steel manufactured pin). These two part numbers will allow us to recapture over [REDACTED] in cost.
Testing on coatings has been terminated because of good wear observed on [REDACTED] pin.
- Carrying case blade/radius guide graphics (running change) are on final pass.
- DH would like to make running change to add #12458 scroll blade and remove the metal cutting blade. He will follow up with [REDACTED] to confirm cost savings.
- "P" order of sandbox shafts will be started to support post-production testing.
- Production in [REDACTED] (Earliest production based on gear delivery would be P2 on [REDACTED] followed by immediate production.)

Action Items: (responsible party/date assigned)

- Determine if a meeting is need on scroll latch [REDACTED]
- Follow up on [REDACTED] pm quote [REDACTED]
- Blade cost for 12458 in bulk [REDACTED]
- Scroll hsg torque range [REDACTED]
- Determine options on 901717 cam hardness [REDACTED]

MI	STONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CER	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Engineering Release	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
ESL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Pilot Lot	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Production	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Tigersaw Relaunch (PP 01-72)

- Jam test failed after [REDACTED] because of retaining ring dislodging. Additional review and testing are required.
- 1/4 turn clamp will cost either [REDACTED] in part cost or [REDACTED] in CNC attachment cost at [REDACTED]. Quote is based on annual volume of [REDACTED] parts.
- Bread-board of keyless adjustable shoe design is in the model shop and should complete by next meeting.
- Handle rotating is being rough prototyped to allow us to obtain better marketing input.

Meeting participants:

R. Pigg
D. Hall

J. Schnell
J. Beville

W. Longmire
J. Wimberly

A. Gathers

D. K. Lucas

Tigersaw Team Notes

DATE:

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

9740 TigerClaw

1. Scroll latch: Engineering has mocked up two saws with increased spring force for review of clutching characteristic. Square headed pin is not showing wear on abusive cutting test when it is fully lubed. Tools are being reworked to insure proper lubrication. Assembly is swabbing the keyway. The pin is being tooled. Carbide has passed all testing including maximum torque applications.
2. Gearing: We are building some saws that are noisy because of no back lash. Gear housings with increased clearance will be start on Gear manufacturer has capability of varying mounting of both gear/pinion and will advise us how positional changes will affect noise and backlash. Approximate housing will be for clearance and the Quality is setting up Vari-roll capability for pinion and gear.
3. A unit is on sandbox life test with increased backlash at the pin).
4. Final Audit was held on Production product was reviewed and authorized shipment. Testing overview is located in Project Notebook Reference section.
5. Manufacturing Issues: on all castings. Occasional undersized yoke 901462 track is being addressed as are thread concerns on the recip shaft 900669 and guide sleeve 901074.
6. Blade selection: We will use up stock of the 6" metal cutting blade and go to the 6" tapered wood blade. We will then go to a scrolling blade as soon as available.
7. Keyless Shoe: "P" order of parts to try to move back to a tighter fit to complete this week. After "P" order parts are built we will consider better centering machining to cast feature.
8. Cold-headed pin 904945 is being tooled.
9. Scheduled for build. Logo is being made here to eliminate compatibility problems.
10. Carrying case blade/radius guide graphics/Flex insert are being tooled.

Action Items: (responsible party/date assigned)

1. Engineering to determine how changes in position affect backlash
2. Expedite quotes
3. Follow up on molded lever 901716

MILESTONE	PLANNED DATE	CURRENT DATE	ACTUAL DATE
Product Proposal			
CER			
Engineering Release			
ESL			
Pilot Lot			
Production			

Meeting participants:

A. Phillips
D. Hall

J. Schnell
J. Beville

W. Longmire

A. Gathers

J. Nichols

Tigersaw Team Notes

DATE:

TO: A. Phillips A. Gathers D. Hall J. Nichols J. Wimberly G. Griffin
W. Longmire J. Beville D. K. Lucas R. Pigg B. Chaterjee

CC: Bob Burkholder, Matt Popik, Gary Gateley, Tom Breeden, Greg Lawler, Scott Kiefer

FROM: John Schnell

9740 TigerClaw

1. Scroll latch/square headed pin: Engineering/quality is reviewing increased spring force on scroll latch. Tooling for carbide square headed pin has started. Improved oil in the recip bearing will be tested to optimize wear under high torque cutting. #2 gear grease with will be tested.
2. Gearing: Backlash study from confirms we are ok on our center distance with the housing dimension. will make another study this week to include between pinion and gear axis. Unit passed sandbox life test at at the pin). Production has had minimal noise since the center distance change.
3. Manufacturing Issues: all casting is greatly improved. Reports of 901074 guide sleeve "backing off" during run in on a few units. Assembly station will be reviewed. Drivers on both thread stations have been changed from impact to torque limiting. Contamination and thread damage on threads. AG will look into material handling issues on guide sleeve/shaft/yoke. Gash in thread is being quote to help remove contamination.
4. Blade selection: We will use up stock of the 6" metal cutting blade and go to the 6" tapered wood blade. The 6" tapered blade will go to a scrolling blade as soon as available.
5. Keyless shoe: Bracket dimension is change back to pilot dimension. Roll pin has been extended.
6. TigerClaw black leather jacket was modeled by Dave Hall.
7. Round headed pin 904945 tooling is finished. Parts need to be shaved and heat-treated.
8. Production date is Instruction manual is finished except for pictures. Carton die and carrying case insert are being make. There is some risk on this product because a marketing Product Proposal has not been issued.
9. Last order of 901463 bushing is undersized on OD. to verify size prior to shipping replacement parts
10. Study to be conducted to determine additional TigerClaw capacity w/o capital and assets needed to produce increased annual quantities specified by DH.

Action Items: (responsible party/date assigned)

1. Determine corrective action on recip shaft threads/ material handling
2. Add timers to control amount of grease dispensed.
3. Capacity study
4. Post analysis meeting

Tigersaw Relaunch PP 01-72

1. Product Proposal to be amended to include international models.
2. Rotatable handle unit shown. Cost and Market value to be determined. Part will be dyed black for field input. Stop will be added at
3. Handle design has preliminary approval; a surfaced foam model w/grip will be fabricated.
4. Exposed blade clamp: Engineering to determine availability/cost of 1/4 turn blade clamp. Spreadsheet to be made with +/-'s of an exposed clamp.
5. Review of the keyless shoe design to be made with existed patents. Preliminary gear housing has been forwarded to for review.
6. Jam test results Gear ratio and motor power will be revisited.

Action Items: (responsible party/date assigned)

1. Determine availability of 1/4 turn collet
2. Fab handle with grip
3. Spread sheet on exposed blade clamp
4. Review keyless shoe patents

Meeting participants:

A. Phillips
D. Hall

J. Schnell
J. Beville

W. Longmire
D. K. Lucas

A. Gathers
J. Wimberly

J. Nichols